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The Playground

Swimming Pools
Playground Equipment



CONCENTRATION

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The Playground

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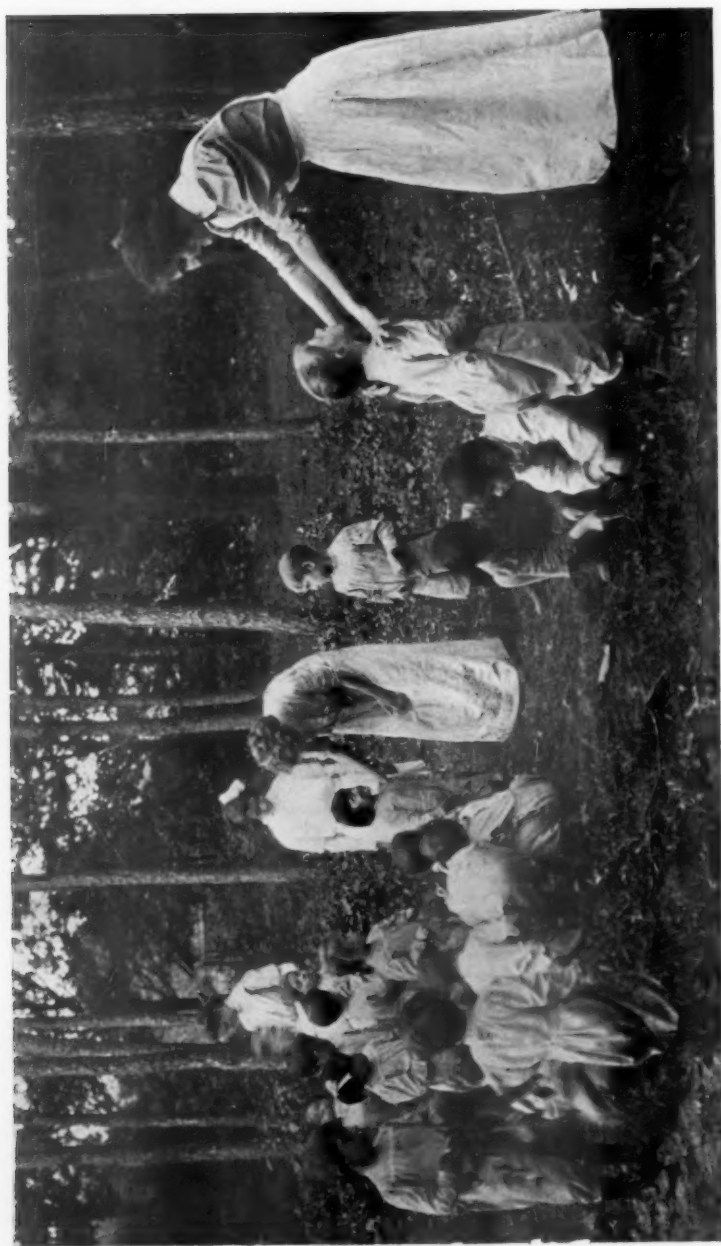
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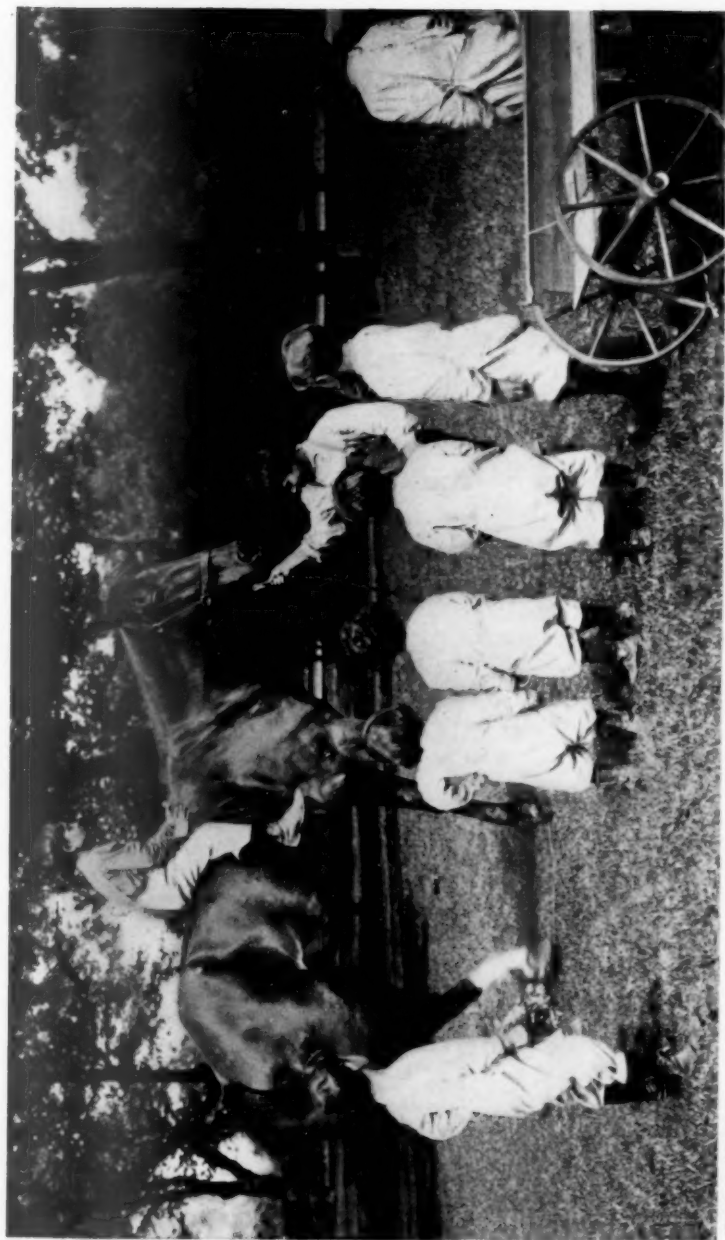
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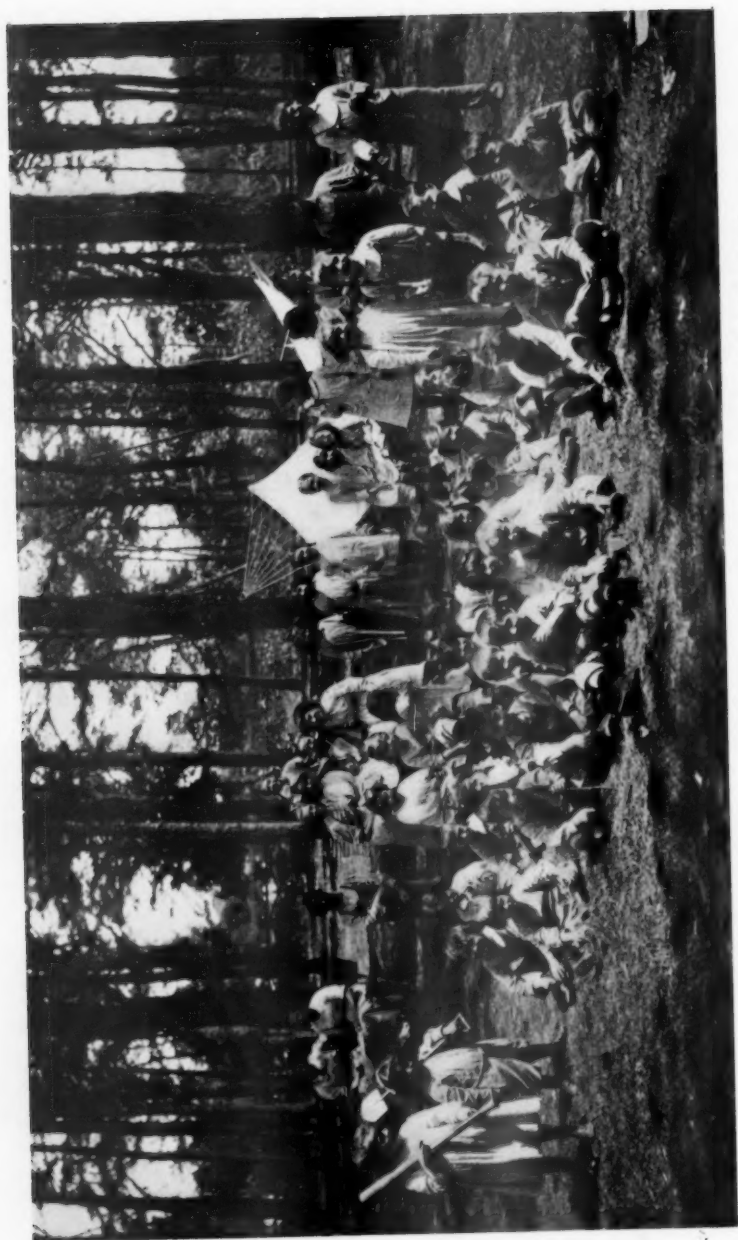
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HAPPY SUMMER DAYS ON THE SHADY PLAYGROUND AT SEASIDE HOME

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SOME NOTES ON THE CONSTRUCTION AND ADMINISTRATION OF SWIMMING POOLS

JOSEPH E. RAYCROFT, M.D.

Princeton University, Princeton, New Jersey

The past few years have seen a great increase in the interest in swimming, due to a growing appreciation of its value both as an exercise and as a useful accomplishment. This growth of interest in swimming has stimulated a demand for the construction of swimming pools in athletic clubs, Y. M. C. A.'s, schools, colleges, and playgrounds.

In the latter case in particular the development has been so rapid and the special problems so pressing that the following notes and suggestions have been compiled at the request of the secretary of the Playground and Recreation Association of America.

These statements are not regarded in any sense as the last word on the subject. Each institution has its own problem, upon the successful solution of which will depend the usefulness and value of the pool.

It is hoped that these notes may prove to be of use, not only in answering some of the questions of those who are responsible for planning and administering swimming pools, but also for suggesting questions that must find a correct solution in order that the financial outlay may be justified by a plant which will give efficient service.

There have been more sins of omission and commission in the construction of swimming pools than in any other item of equipment for playground or gymnasium.

Common Mistakes Some of the common mistakes which have been repeated singly or in groups in many pools in the country may be noted:

(1) The selection of a bad location—not infrequently in a basement in which the ventilation is inadequate and which is inaccessible to sunlight or even daylight

(2) Bad type of construction, so that it is difficult or impossible to keep the pool and its surroundings in a sanitary condition

(3) Inadequate provision for ventilation

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(4) No provision for filtering or sterilizing the water in the pool

(5) Insufficient water supply, openings for supply and escape too small, or inadequate facilities for heating so that an undue length of time is required to empty, clean and refill the pool with warmed water

(6) No hose connection with hot and cold water for use in washing the pool

(7) Dimensions that are unusual and difficult to measure for competitive activities, e. g., length 40, 50 or 80 feet

(8) Inadequate and badly located shower baths

(9) No office for swimming instructor or supervisor when he is not teaching

The reappearance of one or more of these mistakes in so many pools is due in some measure to the fact that there is little organized and detailed information on the subject available. In many cases the swimming pool has been planned with an eye to water-tight construction and good artistic effect—both important considerations—but with a complete lack of appreciation of the requirements of modern sanitation and administrative measures. In other words, swimming pool construction up to the present has been predominantly an architect's problem rather than a problem in which factors of sanitation, teaching, and administration have been recognized as of fundamental importance.

The questions of size and depth will be governed by local conditions in each case, (1) the number of people who will use the pool, (2) whether it is to be used by children and non-swimmers, (3) whether or not the pool will be used for swimming races or diving contests, and (4) the expense of water and heating.

The following discussion will deal with modern and approved examples of each type—outdoor pool, municipal bath, and pool in gymnasium. Variations from each type that have been found practicable in actual use will be noted and some of the reasons that have led to the adoption of a given variation will be stated.

It is to be understood that it is not practicable under the circumstances to make hard and fast specifications. Each pool

CONSTRUCTION OF SWIMMING POOLS

must be designed in such a way as to adapt it for the particular function that it is intended to serve in its particular environment.

Certain fundamental points, however, regarding construction and administration will be emphasized as essentials in all swimming pools.

DIMENSIONS

Size

Outdoor pools may be 75 to 150 feet long by 30 to 60 feet wide. It is desirable to have the length some number of feet which is a multiple of 3 and 5, such as 60, 75, 120, for convenience in measuring distances for competitive work. The width should not be less than 30 feet.

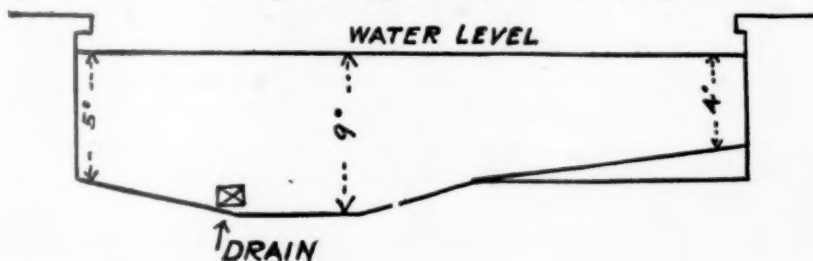
Indoor pools may be 60 or 75 feet in length and the width should not be less than 25 feet. For ordinary purposes an indoor pool 60 feet long and 30 feet wide is quite adequate. It is undesirable to have an indoor pool less than 60 feet or more than 100 feet in length.

Depth

This will depend upon whether the pool is to be used by adults only or by children and adults.

If the pool is to be used mainly by adults, it is desirable to have a depth ranging from 4 feet for the non-swimmers and learners to $8\frac{1}{2}$ or more feet at the deeper end for diving. It should not be more than 4 feet deep at the shallow end nor less than 7 feet at the deeper end. If it is an outdoor pool and is to be used by children also, it has been found desirable to have at one end an area 12 inches in depth for children and then a gradual slope to a depth of $8\frac{1}{2}$ feet at the deeper end.¹

A special shape of the bottom which has been found of value in indoor pools may be considered useful in the smaller outdoor pools also. This has been called the "spoon shaped" pool. Its outline may be suggested by the following sketch.



¹ Fuller Park, South Park System, Chicago, Illinois

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This construction has a double advantage. In the first place, it gives the greatest depth of water at that point in the pool where it is most needed in diving—12 to 15 feet out from the spring board; and, second, it provides a ledge at the deep end upon which one may rest if necessary.

DRAINAGE

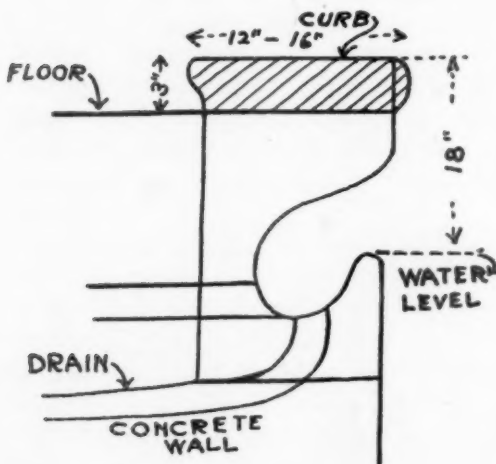
This is a very important matter. This fall ought to be three to four feet at least and the opening to sewer ample in size in order to get rid of the water rapidly. If the water does not pass off rapidly it often means that the pool is useless for one and a half or two days while the water is being changed. The relationship of the pool bottom and the sewer level ought to be carefully determined before the pool is built, so as to avoid expense of pumps for emptying the pool.

Material and Construction

The most satisfactory results are being secured with re-enforced concrete lined with glazed terra cotta bricks or tile.

The corners should all be rounded to favor ease in cleaning. It costs more to construct a pool in this way but it is much cheaper to maintain and it is much easier to keep in sanitary condition than one made of concrete and smooth plaster.

A continuous trough should be built at the water level the whole length of each side. This trough should be recessed so



that its front edge is flush with the inside wall of the pool. It should be supplied with drains leading off at intervals of ten to fifteen feet to a common drain. Such a trough serves the double function of a rail for support and of a spittoon. It is kept constantly flushed by the water which splashes over.

Various markings

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can be introduced into the tile linings, which will prove useful as warnings to swimmers that they are approaching the end, and in indicating certain depths and distances which are used for swimming races and in playing games.

The side wall of the pool should be extended at least three inches above the surrounding level in order to limit as much as possible the introduction of dirt from outside into the pool and the flowing back of water which may have splashed out. This coping should be not less than one foot wide, and it should be eighteen inches from the level of the water, if the pool is used for competitive work. The floor should slope away from the pool to drains placed at some distance from the curb.

WATER-PROOFING

The construction of swimming pools so that they will be water-tight has presented more difficulties than any other point in construction. This is a factor of the greatest importance even in an outdoor pool in places where the water has to be paid for.

A water-proofing specification which has been frequently used and which has proved to be very satisfactory calls for Hydrex Felt laid in hot layers of Hydrex compound consisting of a specified number of alternating layers of each.

Another specification calls for "Black Diamond Brand" Felt, weighing not less than fourteen pounds per hundred square feet, laid in alternating layers with pitch distilled direct from American coal tar at a temperature of not less than 250° F., to be laid not less than 320 pounds for each hundred square feet.

Other Suggestions An outdoor pool in Belmont, Mass., was made water-tight by "puddling" the clay. This was covered afterwards with field stones of various sizes laid as close together as possible with the rough edges up, and these in turn were covered with clean gravel and beach sand. Without this layer of stone and gravel there would have been danger of the clay's going into solution into the water and making it muddy.

A layer of bricks covered with building paper, thickly tarred with asphalt, and then another layer of bricks and another layer of asphalt, and so on, secures excellent results.

Some indoor pools have been constructed of steel tanks

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lined with cement and glazed tile. This construction would naturally be considered in cases where the pool is not on the ground floor.

SUPPLEMENTARY EQUIPMENT

Shower Baths and Dressing Booths

No swimming pool is complete without an adequate equipment of shower baths. The number required in a given instance will depend upon the number of people that use the pool.

In one outdoor pool² in which the attendance in two months, August and September, was 16,952 men and 2,464 women, there are 196 dressing booths connected with shower rooms for men and shower stalls for women.

Water Heaters

As a rule it is unnecessary to heat the water in outdoor pools, but it is very important from a sanitary point of view that the water for showers should be heated.

Water may be heated in either of two ways—introduce live steam directly into the shower mixer, or heat water in a special apparatus, and mix hot water with the cold in the shower.

Filters

Where the water for the pool is dirty or discolored it is very desirable to remove the matter in suspension by passing the water through a quartz sand filter—equipped if necessary with an apparatus for introducing a small amount of alum solution into the water to coagulate the organic material so that it will be more completely removed by the filter. This process is desirable both because it makes the pool more sanitary and because it makes it possible for the attendant to see the bottom of the pool at all times and lessens the danger of accidents.

Where the water has to be paid for and the expense of emptying the pool daily or at short intervals is too great, then the installation of a re-filtering and sterilizing plant should be considered. Such plants are in use at Brown University, Amherst College, and Columbia University. There is no reason why similar provision should not be made for outdoor pools, if the water is expensive.

² Fuller Park, South Park System, Chicago

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BATH HOUSES

Of course, there is no limit to the variation in types and sizes of bath houses. They may be made of wood, of a rough cast plaster on wire laths, or they may be elaborate and beautiful additions to the architecture of the city.

A Public Bath in Brookline

One of the first examples of the elaborate, public indoor bath in America was built in Brookline, Mass., about twelve years ago.

This is a T-shaped brick building, the cross-bar of the "T" being along a street; the other part extends back, and contains the swimming pool. The head house has a handsome main entrance in the center, with a vestibule, hall and waiting room. The main part of the building contains the natatorium, spectators' gallery, running track and dressing rooms. Around the swimming hall are forty-two dressing rooms, with a passage-way on either side, so that each room has a front door on the pool and a rear door on the encircling corridor. The stone floors of the passage-way and dressing rooms are kept warm by steam pipes underneath. At one end of the swimming hall are three rain baths, at the other two; these are for the preliminary cleansing bath required of all before entering the tank.

On the right of the entrance is the instruction room, containing a tank 22 x 10 feet, with water of an average depth of 3½ feet, six large (double) dressing rooms and a rain bath. On the left of the entrance is a large room containing six rain and footbaths, and three bath tubs with an over-head rain bath attachment, and nine dressing rooms. The rain baths are of the "Gegenstrum" pattern, and there are fifteen of them in the building, with space for three more when needed. The development of the slant shower or rain-bath system, has made possible a good bath that is quick, comfortable and effective.

A special feature of the new building, which is to be found in two of the best and newest establishments in Europe, is the passage-way before spoken of on both sides of the dressing rooms. This addition has the approval of Dr. Edward M. Hartwell, formerly director of physical training in the Boston schools, and has many advantages. Among these are, the convenience of keeping clean the passage-way around the tank, better ventilation of the dressing rooms and better order among the bathers.

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The entire first floor is of artificial stone. Steps of Tennessee marble lead into the water at the four corners of the large tank. Just above the water surface, around the sides of this, is placed a heavy brass guard-rail. An abundance of light is admitted from very large skylights in the roof, and windows in the gable end and in the gallery. The building is also well equipped with gas and electric lights. The spectators' gallery, also used as a running track, is reached by means of a stairway from the hall, or directly from the second floor room in the head house, 90 x 30 feet, which will be used for lockers and for gymnasium purposes. Two horizontal tubular boilers in the front basement furnish the steam to heat the entire building and the water. The building also contains a steam laundry for suits and towels, toilet rooms and other modern conveniences.

In Denver

The main building of the recreation and bath house in Washington Park, Denver, Colorado, is 45 x 108 feet; the plunge-pool wing, 40 x 60 feet, extends close to the lake. The west wing of the main building contains lockers and dressing rooms for the men and boys; the east wing has the same for the girls. The office and waiting room are in the front section, having corridor connections with swimming pool, shower baths and toilet rooms. The waiting room is 20 x 36 feet, and contains a fireplace. The men's and boys' locker room is so constructed that it can be used as an assembly room, with a seating capacity of three hundred, when occasion requires. Shower rooms for men and women, girls and boys, are separate, so that private baths may be had at all times. Large open showers are provided at each side of the swimming pool. A boiler for heating the building is also provided.

The Carnegie Pool at Yale

The Carnegie Swimming Pool at Yale University is one of the newest indoor pools, and has some admirable features. The pool is in a separate building connected with the gymnasium by a covered passage. It is 75 feet long, 30 feet wide, and 9 feet 6 inches deep at the deepest point, which is about 12 feet out from the end of the pool; that is, it has its greatest depth at the point where it is most needed in diving. There is a recessed trough at the water level, which serves as a rail and as a cuspidor. The arrangements for spectators are such that they are admitted to

CONSTRUCTION OF SWIMMING POOLS

the galleries and do not occupy the space immediately about the pool. This plan prevents much of the contamination of the water by dirt brought from outside on clothes and shoes. The provisions for heating the water, for drainage, and for ventilation are particularly good.

New Plans for Chicago Pools

The latest plans for swimming pools in the Chicago South Parks provide for two pools in each park. One 115 feet long and 44 feet wide varies in depth from an inch or so to four feet. There is at one end a series of seven steps which extend clear across the pool, which have a rise of five inches and a width varying from 30 inches to 15 inches. This arrangement makes an ideal provision for the children in the period between the wading pool and the real swimming pool stages when they are learning to swim. There is a second pool provided for those who can swim. This pool is 60 feet long by 44 feet wide. The depth is 8 feet throughout, allowance being made for drainage. These new pools are built of concrete lined with glazed tile, have round corners, over-flow troughs on the sides, and are supplemented by a booth house that has bath and dressing accommodations for 190 people in a single period. Among the many excellent features of these plans, there is one that is worthy of special notice from a sanitary point of view; that is, a special examination room through which the bathers must pass to get their swimming trunks or suits in going from the dressing rooms to the shower baths on their way to the swimming pools. The advantages of this arrangement from a sanitary and administrative point of view are obvious.

It is sometimes planned to use the building containing the swimming pool as a skaters' rest in winter. Of course, sufficient heat to make it comfortable in the coldest weather is necessary in this case. An open fireplace has been found a delightful addition in some cities.

It has been found in some places wise to have the doors of the dressing rooms in public baths come clear to the floor in order to prevent petty thieving.

ADMINISTRATION

Hours

Outdoor pools are ordinarily open from eight o'clock in the morning until ten o'clock at night. Generally a teacher of swimming is in at-

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tendance for certain hours of the day when the crowds are greatest. Many municipalities have found it wise to have certain days set aside for women and girls and others for men and boys. In several communities certain days for mixed bathing or for families have proved immensely successful.

In the South Parks in Chicago the hours are from ten a. m. to ten p. m. Groups are admitted every hour for the entire process of marching in, receiving suit and towel, changing street clothes for bathing suit, the cleansing bath before entering the pool, the swim, dressing and retiring to make way for the next group. These groups are limited to 200 in the larger pools. Girls and women are given exclusive use of the pools two days and two nights each week. Two days are consumed in most of the pools for cleansing purposes, thus boys and men are given three days and three nights each week. The general practice is to keep small boys out of the pools at night so that a greater number of men may be served. No emphasis is placed upon instruction in swimming for any of the groups. The vigilance, energy and skill of those in immediate charge of the pools (two or three life guards and two or three booth attendants, according to size of pool, and one head attendant) are taxed in routine operation. It is a common experience to handle as many as 1,500 to 2,000 bathers in one day; thus the emphasis in management is placed upon the safety, comfort, and rapid handling of the multitude, rather than upon teaching a few to swim by approved strokes. Non-swimmers are the exception among the boys, and a very large proportion of the girls are able to swim at the end of the season. No charge for suit or towel is made, the entire service being free to every group.

In indoor pools the problem is a different one, and the program of hours and work will be governed by conditions in each place.

Activities All sorts of aquatic sports may be encouraged in the swimming pool. Some pools forbid diving; but the general experience is that diving, speed swimming, fancy swimming, tub races and "stunts" add to the enjoyment of the swimming pool and increase of patronage.

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Supervision

As with all recreation, so with swimming pools, supervision is absolutely essential to success. In some cities this takes the form of attendants who are responsible for keeping the shower baths clean and assisting the patrons when necessary; but, if possible, a good swimming teacher should be in attendance. There should always be some one who could act as life-saver, if necessary. In the New York public baths this work is done by the United States Volunteer Life Saving Corps and the Women's Life Saving Corps. In any case, the bathers in public baths should never be left unprotected.

In order to keep the life guards in efficient and responsive condition, the following daily practice was ordered at the South Parks in Chicago:

SOUTH PARK COMMISSIONERS

DIVISION OF FIELD HOUSES AND PLAYGROUNDS

GENERAL LETTER

June 3, 1911

To Directors:—

Please observe the following in relation to swimming pool operation:

(1) See that the full number of life-savers are on duty at every session of use of the pool by boys, girls, men or women. Strict attention to duty must be the thought and attitude of every life-saver.

(2) See that every man is properly dressed to go into the water at a moment's notice. The one-piece bathing suit and bath robe must always be worn by life guards.

(3) See that all life buoys are in a serviceable condition and are not tied to lamp posts.

(4) Give general direction or detail one of your men capable of giving personal direction, to the following drill by each and every life-saver:

(a) Swim the length of the pool at speed. Make a race of this event for all life-savers to see who is the fastest swimmer.

(b) Dive from the edge of the pool and take from bottom a five-pound weight at the deepest point.

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(c) Tow a non-resisting man sixty feet by one of the methods taught by Corsan.

(d) Practice lifting a non-resisting person from the pool without injury to the person being lifted out of the water. Use the Corsan method.

(e) Swimming on surface, plunge to bottom at deepest point and pick up a five-pound weight, bringing same to the surface.

(f) Practice breaking away, by Corsan method, from any reasonable grasp a drowning person might secure on a life-saver.

(g) Go through the Schaefer method of resuscitation.

(h) Run once around the pool in the sand for improving the wind.

(5) See that the above drill is practiced every day, except Sundays, and on days when the pool is empty for cleaning purposes.

(6) To facilitate the drill close the pool to the public on days of drill at 11.30 o'clock. Practice from 11.30 to 12, and send men to lunch from 12 to 1 o'clock. Resume operation of pool at 1 o'clock.

(7) Let the number using the pool at any one session be limited to seventy-five people to each life-saver.

(8) Report to the proper authority the case of any life-saver who seems unable to perform any one of the tests outlined above.

In an indoor pool in which the daily attendance is not more than 400 or 500, two instructors or attendants are sufficient to teach the classes and to maintain adequate supervision.

BATHING SUITS

Trunks or bathing suits are required in outdoor pools. These articles should be furnished by the management with or without (preferably without) charge, according to conditions. This makes it possible to wash and sterilize the suits before they are used again. Further, it insures the use of clean suits and lessens the amount of bacterial contamination of the water.

It is preferable in all cases where conditions will permit to prohibit the use by men and boys of suits or trunks in indoor pools.

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SANITATION

With the great increase in the use of swimming pools during the past few years there has arisen a larger realization of the importance of maintaining good sanitary conditions in and about swimming pools. Consideration of this question falls naturally into three divisions:

First: The location of the pool, the character of its surroundings and the type of contamination. These points have been discussed in the foregoing pages.

Second: Administrative measures minimizing the amount of bacterial contamination by:

1. Requiring each bather to take a thorough bath with soap and warm water before entering the pool—this under careful supervision

2. Furnishing clean bathing suits to the bathers; or, better still, allowing boys and young men to go without suits or trunks when using the pool.

These two measures will do much to lessen the number of bacteria that are introduced into the water by the bathers.

Third: Measures for keeping the pool clean and the water in it sterile.

It is necessary to empty the swimming pool and to scrub it out thoroughly at regular intervals—the length of which will depend upon the local conditions, the amount of suspended matter in the water, the number of persons using the pool. The swimming pools in the Chicago South Parks are emptied twice a week—or oftener, whenever the number of bathers equals one to each 100 gallons of water in the pool.

Sterilization with Calcium Hypochlorite It has been demonstrated that the water in a pool can be kept sterile with a little care and at a very small expense by the use of regular doses of calcium hypochlorite (bleaching powder). This substance is an effective sterilizing agent if used in the proportion of one part to one million parts of water. If conditions are such that the water can be changed daily, the sterilizing substance is not so necessary. If, however, the pool is emptied less often, then the bleaching powder must be used. The frequency of the doses will be determined by the character of the water, the number of persons using the pool, the frequency with which

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the water is changed, and finally, and most important, by a reliable bacteriological examination of the water with especial reference to the determination of the number of *B. Coli* present. These examinations should be repeated in each pool a sufficient number of times to give a reliable picture of the increase in the bacterial content and to serve as a basis for formulating a regular program for the use of the sterilizing agent.

Where the water is expensive it will be found an economical measure to install a re-filtering plant which can be kept in operation all the time that the pool is being used. The capacity of the pump and filter should be governed by the capacity of the pool, so that the entire amount of water can be sent through the filter at least every two days. This procedure will keep the water entirely clear for a long time, but it does not remove all the bacteria that may be in the water.

It is necessary, therefore, under the above conditions to install an apparatus which will discharge a measured amount of the calcium hypochlorite solution into the stream as it passes into the pool. In this way, the suspended matter in the water is entirely removed, the water is kept clear, and, most important of all, the water is kept sterile.

Where such an apparatus as that described above cannot be, or is not, installed, the water can be dosed in the following way: Fill cheese cloth bags with the bleaching powder—one pound to 100,000 gallons of water (one part to one million) and drag the bags along the surface of the water until the chemical is all dissolved.

A dose of this size is effective in most cases for twenty-four to forty-eight hours, when it must be repeated. Generally speaking, it is better to use small doses daily than to use big doses less frequently. This is true not only because the large doses may cause a slight taste or odor in the water, which makes it unpleasant, but also because the smaller doses at shorter intervals keep the water more evenly sterilized.

Cost of installing and maintaining the special apparatus necessary for pumping and refiltering the water:

In one institution—capacity of pool 50,000 gallons

Installation\$1,000

Maintenance 285

Capacity of Pump50,000 gallons daily

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| | |
|---|------------------------|
| In another—capacity 260,000 gallons | |
| Installation | \$2,800 |
| Maintenance (Apparatus installed too recently to make figures available) | |
| Capacity of Pump | 5,000 gallons per hour |

ATTENDANCE

No activity of a gymnasium, playground or recreation center is surer of never-failing popularity than the swimming pool. The total attendance from June 1st to September 25th at Lawrence Park, Pittsburgh, was 45,165. This pool was not open evenings. At Ormsby Park the attendance was 62,975. In Burnley, England, the attendance in 1910 was 150,000. In the twelve Chicago South Parks the attendance in 1911 ranged from 19,400 in Fuller Park during August and September to 103,166 in Ogden Park during the season.

COST OF CONSTRUCTION

This varies so much according to the type of outdoor pool, natatorium, or bath house, that it is difficult to give a general estimate. A pool 20 x 50 feet may be built for from \$2,000 to \$5,000. The stucco building in the Sixth Ward in Minneapolis, where the pool holds 55,000 gallons, where the building is fire-proof, with forty dressing rooms, and the water heated by steam jets, cost \$20,000. A building in Denver cost \$17,500 for the site and \$72,500 for building construction. The Brookline, Mass., pool cost \$50,000 not including the land. The new outdoor pools in the Chicago South Park system cost with booth houses \$71,500.

COST OF MAINTENANCE

The cost of maintaining one open-air swimming pool in Pittsburgh from June first to September fifteenth was \$987.78, while another cost \$930.31. The committee's estimate of the Brookline pool for 1901 was: wages \$5,150, fuel \$1,500, lighting \$500, bathing suits and towels \$150, repairs \$250, miscellaneous supplies \$150, contingencies \$300, special repairs \$1,052—total \$9,052. Three pools in Washington, D. C., located near each other cost \$4,830 a-year. In Ogden Park, one of the South Park system in Chicago, the expenses from June 15th, to September

CONSTRUCTION OF SWIMMING POOLS

10th, 1913, were \$2,696.42; divided as follows: salaries \$1,153.16, general expenses, including annual repairs to pool, \$583.26; light, heat, towels, soap, suits, \$960.00. This made an expense of \$.0316 for each of the 84,583 individuals who used the pool during the season.

ADDITIONAL POINTS REGARDING INDOOR POOLS

Temperature of Water

Temperature of the water should be from 74 to 76° F. The temperature of the room should be from 82 to 86° F. If it is heated by direct radiation, the steam coils must be recessed and protected by gratings so as to prevent burns.

Light and Ventilation

Provision should be made for adequate ventilation and for the admission of as much sunlight as possible. The ceiling should not be less than fifteen feet from the floor. The floor should be pitched so that the water will flow away from the pool to drains placed at a distance. The pool should be so placed with reference to the walls that there is a minimum of four feet clear space on one side and on one end and not less than ten feet at the other end and as much as possible on the other side.

Spectators

Adequate provision should be made for the accommodation of spectators by means of a pitched gallery if there is room for one, or, but this is less desirable, on the floor on the same level as the pool.

Showers

There should be adequate water supply for the shower baths and they should be located so as to permit the instructor or attendant to supervise their use by those who are preparing to enter the pool. It is very desirable to have a urinal installed as a part of the shower and toilet equipment in the men's natatorium.

Steps into the Pool

Marble steps should not be built in the pool. Ladders of two-inch pipe, one on each *side* at both ends of the pool, are better. Don't put ladders or steps on the *end* walls. Make them removable for competitive work. It is very desirable to have a spray installed at the shallow end opposite the overflow which can be used to cleanse the surface of the water by creating a current into the drain troughs at the sides and also for replacing the water that may have been lost through splashing into the trough.

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Entrance for Spectators

Arrange entrances to the natatorium so that spectators will not be obliged to pass through the locker room or use the same entrance that is used by the swimmers.

Filters

The expense of installing a continuous filtration plant, including pump, quartz beds, complete with a capacity of forty or fifty thousand gallons per day, varies from \$1,000 to \$3,000.

The installation of a vacuum cleaner in pools where the water is refiltered will make it possible to clean the sediment from the bottom of the pool. Water removed by this process may be returned to the pool through the filter.

The observance of the points mentioned above will result in economical construction and efficient administration; and will do much to remove the causes for the fear that swimming pools, used by many persons under prevailing conditions, may be agents for spreading contagious diseases.

PLAYGROUND SURFACING*

W. D. CHAMPLIN

Executive Secretary, Board of Recreation, Philadelphia, Pa.

In discussing playground surfacing, we have the same considerations as in all other subjects—finance, initial cost, durability, maintenance.

Grass Surface Ideal

In discussing the kind of surface for a playground, I am sure we are all agreed that a grass surface is ideal,—it is delightful to the eye, it is decorative, it produces a soft soothing atmosphere which is restful even on the hottest day. But what of its durability and maintenance? On a playground patronized by a large number of people, it is simply impossible. In Berlin, Germany, on a park playfield, play is permitted only three days a week, for the purpose of protecting the grass, but we cannot subscribe to such a condition, we must have our playgrounds in operation at least six days per week, in many cases seven, and fourteen hours a day. We must, therefore, give up our grass ideal, knowing that it

* Address given at the Seventh Annual Meeting of the Playground and Recreation Association of America, Richmond, Virginia, May 7, 1913

PLAYGROUND SURFACING

very soon degenerates into a mud field during wet weather, and creates clouds of dust during dry weather.

Adapting the Surface Found

As a grass surface does not seem possible, we may consider the treatment of any surface which we happen to have. We have all read of various compositions designed for road building, in which claims are made for binding qualities and the elimination of dust. I have no doubt each one will serve as asserted, but road surfacing and playground surfacing are not in the same class; the requirements for one are quite distinct from those for the other. Road surfacing requires a hard, smooth, non-resilient surface to withstand traction friction. Playground surfacing should be soft, porous, yet firm enough for players to run and romp about on without digging holes or creating clouds of dust. Many of these road building compositions are of oil ingredients and if used on some surfaces, immediately make the use of the playground impossible for several days, until the surface has absorbed it. If used on a clay or other loam surface the oil creates a crust varying in thickness, which is very readily broken through and, during a protracted dry spell with the wear and tear of large groups playing thereon, powders quickly causing clouds of dust. If you attempt to sprinkle with water a surface thus treated, you immediately put the playground out of commission because it then becomes an oily mud field, staining everything it comes in contact with, and causing indignation and resentment against the playground in all of the parents of the children and neighbors about the playground.

Glutrin Solved the Problem

In Philadelphia we met all of these conditions, tried the various compositions recommended until finally we created from the experience gained a specification to meet the peculiar needs of a playground. Among the various compositions tried was one known by the trade name of glutrin. Glutrin is a refined by-product of the wood-pulp industry known as the sulfite process, in which is dissolved from the tree or from any other vegetable that may be used, all of the lignin. This is soluble in certain chemicals and these chemicals are used by pulp-makers so that they may rid the cellulose, the material needed for the manufacture of paper, from all of the soluble material mixed with it. It is chemically known as a "calcium-magnesium-ligno-sulfonate."

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Valuable Characteristics of Glutrin

It is a thick adhesive liquor, and in color generally appears not unlike molasses. It is very soluble in water and, therefore, by proper dilution or by the after-effect of rain on treated surfaces, penetrates very thoroughly and evenly into ground over which it has been sprinkled. Drying, it becomes a powerful adhesive.

In addition to its action as an adhesive when it dries, and this action can be repeated almost indefinitely, as it is an extremely powerful bond, so that when moistened with water and again dried it once more adheres and continues to thus re-cement and re-cement almost indefinitely, it produces a chemical action on all of the materials used for road or playground surfaces.

Being an organic compound, it is but loosely bound together and in the course of time it is so separated that some of its component parts attack the silicates in the stone and slag, grit and gravel, causing these silicates to decompose and liberating a form of colloidal or gelatinous silica that acts as a permanent and waterproof bond.

This action takes place the better when the glutrin solution is very weak so that its very solubility in water is the point that makes it of greatest value in ultimately forming a permanent bond in the surface.

It practically has no effect whatsoever on grass, vegetation and trees. If anything, it has a beneficial result as it has a slight germicidal action and a small fertilizing value. As a matter of fact it will not harm anything that would not be spoiled by plain water and this is an advantage that counts on a playground.

The Approximate Cost per Gallon

In quantities of less than a carload the material is sold at fifteen cents per gallon of ten and one-half pounds. In carload lots, the price is fourteen cents per gallon with freight allowed to the consumer's nearest railway siding. Each carload contains about 3,200 gallons. In tank cars containing about 6,000 gallons the price is twelve cents per gallon, with freight allowed to the consumer's nearest freight station. The approximate cost of spreading is a very difficult question to answer as the cost will vary greatly with the size of the playground to be treated. It might, however, be taken as approximately one cent per square yard.

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Proportion of Glutrin and Water

The proportions of the mixture of the water and glutrin depend almost entirely on the character of the soil, whether it be for the first, second or third times of spreading, as the mixture should be more highly diluted for the second and third times than for the first time.

As a rule, the amount of glutrin required for the first treatment of a playground will vary from one-half to six-tenths of a gallon per square yard, and the mixture, as rule, should be two parts of water to one part of glutrin.

On succeeding treatments the amount of glutrin required will, as a rule, be from two-tenths to three-tenths of a gallon per square yard, and about three parts of water to one part of glutrin should be used.

Even with the splendid results obtained from the use of glutrin we still found that with clay, loam, sandy or other earthy surfaces, the play area could not be used for several hours and sometimes days after a shower or heavy rain, and if we would use the playground continuously we must still provide a material that would permit its use immediately after rain.

Drainage Essential to Good Surfacing

Working on that theory, we first discovered that a very necessary condition was drainage, and we are here reminded of advice given by a very prominent engineer on road building, who said, "There are three cardinal points in road building, first, drainage; second, drainage; and third, drainage!" and the advice is just as applicable to playground surfacing as to road building. Then, if drainage is so important, it is necessary to so grade the surface that water will run to points where it can be carried off into the sewer; that the material used shall be sufficiently porous to absorb any surplus moisture, thereby permitting the use of the area for play immediately after rain.

With these points in mind, the following specification was prepared for a playground about to be improved:

The Plan Finally Found Successful

The entire plot of ground was graded to a sub-grade of seventeen inches below the finished grade and compacted by rolling with a heavy steam roller. It was then re-filled with hard coal cinders (not ashes) twelve inches in depth after rolling with a five-ton steam roller. The cinders were thoroughly wet down

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before and during rolling; a layer of clean hard crushed natural stone grit-screenings was added, five inches in depth after being rolled to a perfect grade with a five-ton steam roller, being thoroughly wet while being rolled and rolled continuously until the surface presented an even unbroken surface true to the grades given by survey stakes furnished by a surveyor, these grades being such as would conduct the water to inlets situated on the outer edge of the playground at various points. Over the surface thus obtained was spread glutrin not less than one-half gallon nor more than six-tenths gallon per square yard in a mixture of two parts water and one part glutrin.

This proved a most satisfactory surface, no dust, no mud and the playground always usable within fifteen or twenty minutes after the most severe storm. This surface has now been in use about two years and has required only a few wagon loads of stone grits in the spring to level off certain areas worn by excessive use and an additional treatment of glutrin in a mixture less in quantity than for the original treatment.

Cost of a Satisfactory Surfacing

It will now be asked what that surfacing cost. I might say it cost more at that time than it would to-day, because we have learned something. To take the figures upon which this work was done it would figure out about as follows: the area treated was 8,000 square yards; the estimate of the contractor for excavating, refilling, rolling, building inlets and connecting to sewer was \$5,960 giving seventy-four cents per square yard or about eight cents per square foot.

We have found that it is not necessary to excavate so deep, ten inches is quite enough, refilling with cinders six or seven inches when rolled and with three to four inches of stone grit-screenings. In fact on one playground we are excavating only to a sub-grade of three inches in depth because the present surface is sufficiently porous to permit water to percolate through, answering the same purpose as the hard-coal cinders, but always the cardinal point of surface grading must be kept in mind, namely, drainage.

As it should always be the aim to have the play surface an even grade or in other words as nearly level as possible, the amount of grade to drain the surface should not be excessive nor very marked, because if the grade is severe, with a heavy

A TRICK OF THE TRADE

rain-fall the rush of water on such a grade will cause wash-outs or gulleys; also, such a surface does not lend itself freely to play. We have confined ourselves to a grade of three-eighths to one-half inch in ten feet, dividing the area in such a way that the grade is not perceptible.

Summary

The entire plot (with such exceptions as may be required in each particular case) is graded to a sub-grade of ten (10) inches, below the finished grade as shown on the plans.

This surface so made is carefully, though not accurately, leveled, and is then compacted by rolling with a steam roller of not less than five tons in weight.

All soil or waste material resulting from this grading is taken away.

Over this surface are spread hard coal cinders so that after rolling with a steam roller of not less than five (5) tons in weight there will be a thickness of seven (7) inches.

The cinders must be thoroughly wet before and during rolling.

The rolling may be done in one layer.

On the cinders a sufficient depth of stone grit or screenings is placed so that after wet rolling with a steam roller of not less than five (5) tons in weight, and bringing the surface to the grades given by the district surveyor, there will be a thickness of not less than three (3) inches of stone grit or screenings.

After this surface has been sufficiently and properly rolled the entire surface is sprinkled with a mixture of glutrin and water until one-half ($\frac{1}{2}$) gallon of glutrin has been absorbed by each square yard of the surface, in the proportion of two parts water, one part glutrin.

A TRICK OF THE TRADE*

JOHN H. CHASE

Superintendent Playground Association, Youngstown, Ohio

One fundamental reason for these playground conventions is to exchange "tricks of the trade" that flash into our minds and

* Address given at the Seventh Annual Meeting of the Playground and Recreation Association of America, Richmond, Virginia, May 8, 1913

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make our work successful. As we were discussing the surfacing of playgrounds it flashed into my mind that we as recreation center people have one vital problem in that subject. Three-fourths of all of us, all over the United States, have to take our children for their school games in the daytime, or their recreation center games in the afternoon or evening, down into the schoolhouse basements which are floored with cement or concrete. We all know from experience how an impalpable dust always rises from this cement floor, fills our lungs, makes us cough, and is apt to carry contagious disease. It almost nullifies the benefit of our whole work. By accident we had an oil left over from the last summer, recommended at the convention at Washington the previous year. It was called Tasscoil. We put this in a watering pot and sprinkled it over the floor just as one sprinkles grass. The children could shout and gasp and play with their mouths wide open and their lungs would not be irritated. The janitor, the directors, the children, were all delighted. It was like playing in the shade on a recently sprinkled playground. Tasscoil is odorless, colorless, almost trackless. It is cheap, and needs to be applied only once in about six weeks. Tasscoil solves the surfacing problem for school recreation centers. It is a fine "trick of the trade."

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DISCUSSIONS OF DR. CURTIS' ARTICLE IN THE NOVEMBER PLAYGROUND*

E. B. DE GROOT

General Secretary, Playground Association of Chicago, Chicago, Illinois

Play and Apparatus Dr. Curtis begins his discussion with what seems to me to be a misleading qualification of play, apparatus and the public playground. He writes:

"To the superficial observer the apparatus seems to constitute the playground, but to the thoughtful it is coming more and more to be regarded rather as a sort of advertisement of its presence than as an essential of it. For the prime need of all children is play, and the prime purpose of every playground

* Discussions of Dr. Curtis' article by other prominent recreation workers will later be published.

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should be to furnish play. One of the chief values of play probably is that it represents the old racial activities through which our progenitors climbed to civilization and modern industries. It is nature's method whereby the child may live through the childhood of the race and develop the motor co-ordinations and skill, the emotions, the judgment and the will in the same way that the race has done.

"The same things cannot be said of play with apparatus. In the larger sense it is not play at all. In its newer forms at least it has no associations with the past. It is mostly a sort of mild diversion. It is nearly all for individual use and tends to break up the common spirit of the playground."

There are many *badly* equipped playgrounds, but I fail to see why a public playground is less a playground because it has a great deal of apparatus.

I do not see why "play" is the less *play* because the one who plays finds pleasure in the use of apparatus.

The theory of evolution does not tell us just what play is. When I see a child at play, I find a more satisfactory explanation of the thing I see in Alfred Tennyson's:

"Little flower—but *if* I could understand what you are,
root and all, and all in all,
I should know what God and man is,"

than I do in our present knowledge of evolution as it relates to play.

We may classify and define play *activities*, and relate them to pedagogy and social welfare, but it seems to me as futile to try to tell just what play *is* as it is to tell just what life and death are.

Boys Have Ever Loved Apparatus

In personal experience I am unable to descend in the course of evolution beyond my boyhood days. But in that period I recall that the trapeze and swing, suspended from the rafters of the barn or the limb of the tree, were used in *play*. The horizontal bar in the doorway or between two posts in the yard was also used in *play*. The ladder, the tight-rope, the spring board, the hitching post, the iron fence were all pressed into the service of our *play*.

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Boys in my day used *all of the apparatus available in that day*. If we had had the same amount and kind of apparatus as boys now find in the modern playground I am sure that every boy in my gang would have been late for dinner every night.

In twenty years of first-hand experience with the play life of boys and girls in school, settlement and public playground I have never found any except "sissy boys" and "silly girls" who did not "just love" apparatus in their *play*.

Where have our good old playful phrases "skin the cat" and "hang by your toes" come from if not from traditions of *play with apparatus*?

When it comes to the development of "motor co-ordinations," "skill," "judgment" and "will," the use of apparatus in play helps rather than hinders such development.

Apparatus Provides Opportunity for the Exercise of Individual Inclination

Unless the playground is regarded as a mere drill ground I fail to see how the use of apparatus "breaks up the common spirit." It is a stupid lot of children who wish to hold hands and "go round and round" all the time they are in the playground. If the playground does not offer an opportunity for the exercise of inclination and taste, where, in this age, is individuality to be developed? I take it for granted that any playground worthy of the name will have an organization scheme—will have games and group events at regular intervals, arranged with reference to age and sex needs—calculated to develop co-operation, team work and the "common spirit" of the playground.

Playground Apparatus Lightning Awaiting a Franklin

On both theoretical and practical ground I contend that a playground is not less but more a playground when it contains a generous equipment of apparatus. The question of how much and what kind of apparatus relates to size of area, sex, age and number of those who use the playground; landscape and architectural composition features of the playground as a whole; climatic conditions, plan of supervision and management, and the purse of the founders and supporters of the playground. A diagnosis of these conditions by someone who knows much concerning all of the factors involved is the only way to approach an adequate answer to the question. I am convinced that playground apparatus is more "sinned against than sinning," and

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that with sufficient funds available, ample area, and the playground in the hands of a trained play leader rather than a mere football coach, nurse-maid or policeman, the thing to do is to install a great deal of apparatus. The crux of the matter, aside from the relation of the apparatus to the composition of the playground as a whole, lies in the knowledge and skill of those in charge of the playground. In other words, playground apparatus is lightning, steam and flying machines, awaiting only Franklins, Watts and Wrights to give a demonstration of its values and possibilities. To whatever school of thought one belongs in this matter, there is one phase of the present situation that all should agree upon, and that is the elimination of the sensational in apparatus. The leap for life, marvelous merry-go-rounds, shoot the chutes from the heights of heaven and other Coney Island amusement devices have no proper place in the public playground.

A Satisfactory Analysis of the Need of a Fence

Dr. Curtis' discussion of separate pieces of apparatus is illuminating even if without definite recommendations. His analysis of the need of the fence is the best that has been given. All who have had experience will agree to the need of a division of the total playground area into two or three separate spaces. In this connection, I wish to add to what Dr. Curtis has said about the Chicago division of space that physiological and not chronological age was made the basis of division.

The discussion concerning sand is excellent but I think Dr. Curtis is on the wrong track when he desires the sand bin to serve only "communal" ends. The sand bin is supplied for those who are, properly, living out their individualistic tendencies in play. I would emphasise the need of thoroughly raking and freeing the sand of refuse daily; also the wisdom of changing the sand two or three times during the season.

Regarding Specific Pieces of Apparatus

In the treatment of the slide more emphasis, perhaps, should have been placed upon the wisdom of selecting a short and low, rather than a high and long slide. Cost, maintenance, safety, order and service argue in favor of the low and short slide.

Unless the playground has a natural hill or incline I should suggest the elimination of the toboggan slide. The made toboggan is very expensive—first cost, maintenance and storage

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—and unless in a uniformly cold section of the country will give little service. The South Parks of Chicago have not supplied the toboggan slide for five years.

I do not share Dr. Curtis' unfavorable view of the see-saw and his more favorable view of the rocking boat or "merry-widow." The latter is a Coney Island amusement device, is expensive in first cost and maintenance and contributes nothing to the development of skill, courage or judgment. The see-saw is a fine elementary balancing apparatus and lends itself to the development of co-ordination, the "square deal" and a certain feeling of responsibility. Its cost is slight and maintenance almost nothing, and accidents are few in the well-supervised playground.

I certainly agree with Dr. Curtis' analysis of the merry-go-round. It has nothing to commend it as an exercise or pleasure that cannot be better secured in the use of some other piece of apparatus.

Sanitation in Wading Pools

Wading pools in playgrounds that are used extensively should be large cement basins. The "natural" pool does not lend itself to "heavy" use and sanitary conditions. The wading pool should be thoroughly cleaned every day. Not "once a week," as Dr. Curtis writes, but once a day has been the rule in Chicago. Children should not be allowed to make a swimming pool of a wading pool. Sore eyes and sore throats will appear from the use of any swimming pool where the bathers are not required to take a thorough cleansing bath before entering the pool. I have seen some thoroughly bad arrangements of the relation of the wading pool to the swimming pool. *The water should never flow from the wading pool to the swimming pool.* The flow should be the other way. It is not much fun, and a good deal of a risk, to dive into water that has served as a foot bath for a multitude of "dirty-legged kids."

I believe that the swing is worth all it costs, even in "criticism." It enables one to fly to the "top of the world," and, Dr. Curtis to the contrary notwithstanding, you have to *work* to get there. Most of the accidents come because the seat of the swing strikes the heads of those who "get in the way." A board seat (avoid metal seat) without projecting bolts and nuts,

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with the edge, front and back, covered with rubber hose (screwed on) will reduce accidents to a minimum.

Highly Skilled Work- manship Needed in Handling Apparatus

Dr. Curtis says, "There is nothing difficult to understand about the steel frame." It may be easy to understand but I assure you that it is most difficult to handle. A steel frame of any considerable size, erected with any regard for appearance and good workmanship, will require the services of at least two good mechanics. The mechanics should be steam fitters, not plumbers or gas men. Union labor rules require that all pipe over two inches in diameter shall be handled by steam fitters. The rules of the union are as sacred as the rules of the game. Also, it is bad policy to use the ordinary "T's and elbows found in the hardware stores." These fittings should be extra heavy and should be ordered "special." All fittings should be made of malleable iron. Unless there is to be a very long span it will not be necessary nor advisable to use larger pipe for "horizontals." The larger horizontals give the frame an ugly, top-heavy appearance.

The giant stride can be made safer and more conducive to developmental ends by having but two rounds or handles, one about the height of the chest and the other the top of the head.

I believe that the teeter ladder is an interesting and valuable piece of playground apparatus, notwithstanding the great number of accidents that are charged to its use. The reason that we have had so many accidents with this piece of apparatus is because of the small number of play leaders who could teach its *proper* use. The instructors of the South Park Playgrounds have had very few accidents from the use of the teeter ladder.

Value of a Circular Running Track

If the public playground is for the use of boys and young men I cannot subscribe to Dr. Curtis' criticism of the circular running track. A play leader who knows the technique of running will very often get as much out of a running track as out of a great many good games. The "stride" in various distances, "taking the turns," "measuring distance" while in action and under pressure and "timing the laps" make up an interesting and splendid program of training for boys and young men. The incomparable relay race may be worked out at its best on a circular running track. A competent play leader would not

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permit boys to overdo in this form of play. The construction and arrangement of the track need not interfere with other activities. That is a mere matter of adequate planning.

I do not think that any one who has made a study of physical education and gymnastics will agree with what Dr. Curtis says of the "outdoor gymnasium." His characterization of the horizontal bar and other apparatus is contrary to accepted classification and nomenclature.

The reading of Dr. Curtis' article should be supplemented by reading of the "Report of the Committee on Equipment" (PLAYGROUND, Nov., 1910) and "A Practical Talk on Playground Equipment" (PLAYGROUND, Aug., 1911).

SUMMER WORK THROUGH CO-OPERATION IN AN INDUSTRIAL CENTER OF TEN THOUSAND

JOHN BRADFORD

Amherst, Nova Scotia

Propaganda

The winter of 1911-12 saw the first school and social center work in Canada successfully launched (PLAYGROUND, July, 1912) and with the coming of spring the thoughts of its directors turned to the out-of-doors. "Public Recreation" and "Playgrounds" were words which had no meaning in this industrial town of 10,000—both terms being new to Canada as a whole. The School Extension Committee and members of the Athletic Committee of the Men's Church Federation, the members of the School Board, and interested citizens were consulted and a plan submitted. Through the courtesy of the Playground Association of America and the Sage Foundation, 100 slides of playground work, school and home gardens were secured and a series of lectures delivered in churches, schools, theaters and wherever a group of people could be brought together. In this way some 6,000 people were shown what playground work means.

At a special meeting of the school board, called for the purpose, the use of the high school grounds of six acres was granted for public use. In addition, another center was arranged for in the crowded section of the town.

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Novel Financing

A campaign for funds was mapped out for a group of high school boys divided into five teams of five each and one Saturday morning the boys went out for two hours to collect for the summer work. When the time was up they had secured \$300 as their share in financing the movement.

Teams representing the churches in senior, intermediate and junior baseball were organized under the Athletic Committee of the Church Federation, and other teams of boys in shops and mills were formed. These teams paid a registration fee of \$5, \$2, and \$1, respectively.

Making Ready

With the money now secured, supervision was engaged and one university man and two university women, all of whom had had experience in work with boys and girls, were secured for the summer. In addition, fifteen volunteers enrolled in various capacities, such as group leaders, official umpires, storytellers. The grounds were improved, tennis and volley ball courts and a ball diamond were made—jumping pits dug and apparatus consisting of swings, see-saws, sand boxes, slides, grand stand, lockers, blocks, were all built by the boys and young men under experienced supervision. Cards with the activities and hours in English and French were sent into the homes. The children's work was conducted every week-day afternoon from one to five; boys and girls from nine to six daily and employed boys and girls, young men and young women after six o'clock and on holiday afternoons.

In Operation

The children's work included storytelling, folk games and dances, scrapbook making, flower collections, making dolls' clothes and the occupational games. From time to time, the mothers assisted by giving informal parties on the playgrounds, providing refreshments, thus bringing the workers and parents into friendly relationship. First aid and bandaging classes were conducted for the girls by a nurse, and a physician gave weekly talks to the boys. In athletics a series of events was arranged, the boys competing against time and space, and to these events were added some service work, cooking and entertaining, which gave the boys an all-round development and over sixty boys qualified. The nearest "Swimming Hole" was two and a half miles from town,

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yet twice a week the parties to learn the art numbered from thirty to forty, an instructor going on each trip. Twenty-five boys were taught to swim and as many more improved their swimming. The Senior Church League played three nights a week, five-inning games, after six o'clock. The average attendance at these games numbered 250. Volunteer collections were taken and the receipts added nearly \$140 to the funds for the work. On Saturdays all-day tramping trips were held for the Scouts. Camp-Fire Girls work was begun and on two nights and Saturday afternoons special attention was given to work for girls in the woolen mills. Numbers of boys had their first camping experience. Tennis tournaments were held and at the close a tennis tea was given which proved a delightful social event. The baseball season wound up with a dinner at the leading hotel at which all members of the senior teams, officials, committeemen and the leading men of the town were present.

Actual Results

Some of the effects of the work were notable. On Labor Day an athletic and play meet was held with 140 entries in athletic events. All entered for the love of the sports—no entry fee was charged—no prizes given. No cups nor pennants were offered in the baseball leagues or tennis tournaments. Last season some three dozen boys were before the court for various offences, mainly breaking windows, electric light globes, one boy's record being fifty globes broken in one night. This season not a single boy was arrested in the town on any charge. Near one playground a Mission Sunday School was opened and at the end of the season 130 boys and girls were enrolled in its classes. The games learned on the playground were reproduced in the various neighborhoods and the whole town caught the spirit of wholesome recreation.

Figures with Meaning

A few figures for the two months' work are of interest:

| | |
|-----------------------------------|-------|
| Official Ball Games | 116 |
| Total number of players | 2,050 |
| Number of different players | 310 |
| Attendance at games | 8,774 |
| Attendance of Children | 4,609 |

WHAT A CORPORATION CAN AND DOES DO

| | |
|--|--------|
| Attendance at Scout Work | 310 |
| In Tennis, Quoits, Volley Ball and Athletics..... | 1,357 |
| Attendance at swimming classes | 318 |
| Number of different boys (in swimming classes).... | 90 |
| Taught to swim | 25 |
| Employed girls from Woolen Mills (special classes).... | 160 |
| <hr/> | |
| Total Attendance | 17,578 |
| Estimated number of different persons using fields by taking part in various activities | 1,700 |

| | |
|--|----------|
| Total cost of Supervision | \$310.00 |
| Equipment, work on grounds | 169.68 |
| <hr/> | |
| | \$479.68 |
| Cost per person for 1,700 different persons..... | .27 + |
| Cost per person for 17,578..... | .027— |

WHAT A CORPORATION CAN AND DOES DO FOR THE RECREATION OF ITS EMPLOYEES

C. M. MAYNE

General Secretary, Young Men's Christian Association, Gary, Indiana

The establishment of a new industrial center at the southernmost point of Lake Michigan offered the builders opportunities to do some things which had never been so well done before. How well they succeeded is indicated by the most modern as well as one of the largest steel plants in the world, which, after six years, is now turning out its immense daily product of rails, axles, billets and other steel merchandise. It is also indicated by the school system which has attracted attention and received the approval of educators the world over. In many other but perhaps less noteworthy ways this same progressive spirit shows itself in the new community. In none of these is it more in evidence than in the program for the recreation of the employees which is fostered by the corporation.

WHAT A CORPORATION CAN AND DOES DO

The Illinois Steel Company, the American Sheet and Tin Plate Company, the American Bridge Company, and the E. J. and E. Railway are the four principal subsidiaries of the great steel corporation which operate at Gary. In each one of these a definite program has been adopted and ample provision made for the outdoor recreation of their employees. This fact is the more significant when it is remembered that among the thirty or forty large industrial corporations in this vicinity these are the only ones that give any attention to this matter.

The Illinois Steel Company has an athletic park with grand stand, club house, ball field, cinder track, which would do credit to a university. Besides a baseball team representing the entire works, during the past season a ten team inter-department league has been conducted. Most of the teams have been uniformed and the spirit of rivalry reached such a high pitch that drastic rules were necessary to protect the contests from the importation of players and other forms of professionalism. The players are allowed full time by the company while engaged in the sport. The champion team of the season represented the mechanical department. For those not interested in baseball other lines of sport were provided at the noon hour. Tug of war teams representing the different departments contested for the mill championship, the boiler shop winning in the presence of a throng of hundreds of workers and amid great excitement. On Labor Day one hundred and four contestants entered an athletic meet at the field named "Gleason Park" after the superintendent, who is thoroughly interested in all branches of sport and in the welfare of his men. In this meet, teams were entered from each department. Old college stars in the mechanical and engineering departments vied with husky boiler-makers and blast furnace men. All differences of position and occupation were forgotten, and superintendent, assistant superintendent, foremen and laborers mingled together in a hearty spirit of competition in the day's sports. The company furnished gold medals for first place, silver for second, and bronze for third.

The American Sheet and Tin Plate Company have a good ball field, tennis courts, and a bathing beach supplied with dressing rooms and proper supervision. Inter-department ball games are promoted by officers of the company and on the beach the employees hold frequent fish dinners and swimming parties.

WHAT A CORPORATION CAN AND DOES DO

On the Fourth of July this year the employees and their families enjoyed an old-fashioned shore picnic. Aside from the water sports some of the old familiar amusements such as the greasy pole were engaged in. A photograph of the crowd is interesting in showing the democratic spirit in which foreign-born employees mingle freely with the better-paid American workmen and officials.

The American Bridge Company has one of the best baseball fields in the district. Its representative team has played match games with teams from surrounding cities and for two years aroused the patriotism of every man in the plant in its contest with the team from the Bridge Works at Ambridge, Pennsylvania. The pennant of the inter-department league conducted at this plant was won last summer by the accounting department. During the winter the ball field is flooded, and, with electric lights, all sorts of winter sports are provided. Inasmuch as neither the park board nor the board of education has yet provided playgrounds for the children and young folks who live near this plant it is the purpose of the superintendent to secure a playground director for next season and to make this field more than a ball park. Playground apparatus is to be provided and until the city can furnish proper facilities the young people of the entire neighborhood will find here their opportunity for outdoor recreation.

The E. J. and E. Railway have had poorer facilities for the recreation of their employees than that furnished by the other subsidiaries. Their ball field has been small and poorly located. In spite of this fact their team which entered the Saturday afternoon division of the city league won first place and finally the championship of the city.

In all the plants tennis courts are provided near the office buildings, which are in daily use by both men and women.

Opportunities for indoor recreation in the winter have been provided through the generosity of Judge Gary and the co-operation of the companies in the establishing and maintenance of a quarter-of-a-million-dollar Young Men's Christian Association building, where a finely-equipped gymnasium and large swimming pool, bowling alleys and billiards are largely patronized by the employees of all the companies.

RAISING MONEY FOR RECREATION WORK

These provisions for recreation are a testimony to the wisdom of those who have the control of the affairs of the corporation, and to their desire to make the lives of their employees more abundant. Into all these activities, although the companies have had to take the initiative and furnish the necessary equipment and backing, the men enter heartily and enthusiastically.

The making of steel is no pink tea. It requires tremendous exertion at times from real men of brawn and blood. The anemic have no place here. The success of these enterprises has proven the value of recreation to the husky men whose lives otherwise would lack the lifting of the yoke of toil and the spirit of healthy sportsmanship and the loyalty to their organization which well-administered competition brings.

RAISING MONEY FOR LOCAL PLAYGROUND AND RECREATION WORK

Because of the invaluable service which S. R. Guggenheim of New York has rendered in raising funds for the Public School Athletic League work in New York City, he was asked recently to give to the recreation workers throughout the country a message on financial campaigns for recreation activities, recounting his own experience in dealing with problems of this nature in New York. He writes:

"I consider it a *sine qua non* that the man who solicits funds stands for something in the community, so that a contributor or likely benefactor when appealed to for donations has absolute confidence that anything he may give will be used in a careful and thorough manner, and that the treasurer will see that the greatest possible amount of good will be done with the moneys entrusted to his care. It is also necessary to stimulate the confidence that is first reposed in the organization, by bringing from time to time to the notice of the public, in the most forcible manner possible, exactly what is being done with the funds, and that the greatest advantages are being derived by those whom it is desired to succor. Naturally as years pass on, and the achievements of the organization become better known,—provided the same care and discretion continues,—the confidence of

BOOK REVIEWS

the public increases and solicitations for funds should, unless something unforeseen happens, be greatly facilitated.

"In conclusion I would say that it is futile to use a well-known name in this connection unless that party takes an active and keen interest in the *modus operandi* of the enterprise."

S. R. GUGGENHEIM

BOOK REVIEWS

THE CHURCH AND THE YOUNG MAN'S GAME

By F. J. MILNES, President of the National Indoor Game Association. Published by George A. Doran Company. Price, seventy-five cents, net

The church like other institutions is adapting itself to the changed conditions of modern life. That the church has been too slow in meeting the recreational needs of young people is due in part to the rapidity of the change from the older forms to the new, and partly to the lack of knowledge and means as to what to do.

Mr. Milnes argues strongly because he speaks out of his own experience. He has tried to make the church a center of social interest for young men and he has succeeded. He tells of his success and of the success of others, giving facts and concrete experiences to back up his assertions.

The religion which finds expression in the pages is a dynamic religion of sensible service—how much better it is to save and sustain growing life than to let it run away into folly and failure. The church atmosphere, its standards of behavior, its environment of better things, can be made to draw young men, if only attention be given to such details as lighting and heating an unused room, installing a billiard table and extending the invitation to come. The church's great word in all ages, "come," is made so much more real and explicable when it is recognized that wholesome recreation is a channel for spiritual expression. Open the church buildings, equip and furnish play rooms, make the church a center of happy play and joyful recreation.

The book will greatly help pastors seeking to reach young people especially young men. It will help leaders of boys' clubs and teachers of young men's classes.



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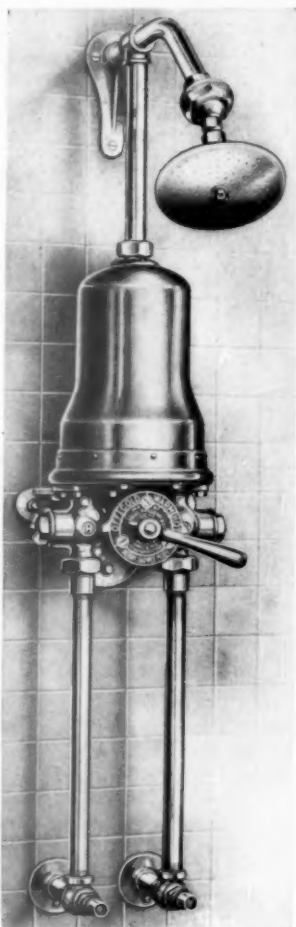
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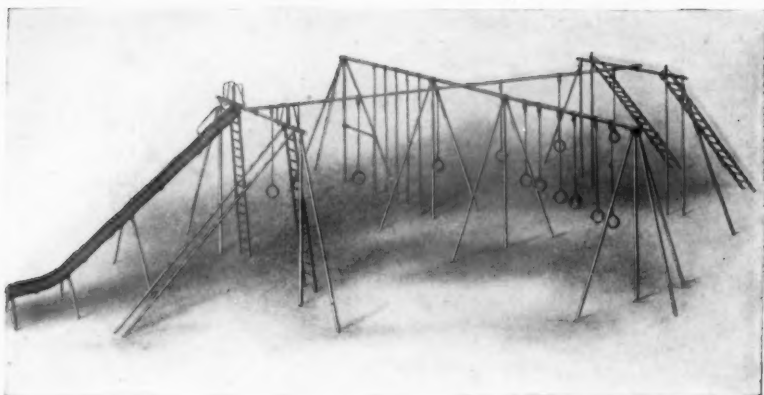
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Fourth—I will avoid over-amusement as I pray that I may be saved from over-work.

Fifth—I will choose the amusements that my wife can share.

Sixth—I will not spend Sunday in caring for my bodily pleasure so much that I forget my soul and its relation to God's kingdom.

Seventh—I will never spend on pleasure money that belongs to other phases of my life.

Eighth—I will remember to enjoy a boy's sports again when my boy needs me as a chum.

Ninth—I will recollect that play should be for the sake of my mind as well as for my body; hence I shall not shun those forms of entertainment that deal with ideas.

Tenth—I will never let play serve as the end of existence, but always it shall be used to make me a better workman and a richer soul.

HERBERT A. JUMP

